

Cluster Statement		Standard	Keep or Propose Change	Type of Change: Removed, Re-written, Broken Up	Quality Standard's Rule #	Summary of Reason for Proposed Change
Use the four operations with whole numbers to solve problems.	4.OA.1	4.OA.1 A.) Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal or written statements of multiplicative comparisons as multiplication equations. Example: Tom has 7 toy cars; Joe has 5 times as many. How many toy cars does Joe have? Answer: 35, because $7 \times 5 = 35$ or $5 \times 7 = 35$ B.) Know from memory all products of two one digit numbers.	Change	Re-written/Standard moved from different grade level (third) to fourth	#3	A) Clarify by using an example B) felt it was important to include the fluency of facts in third grade, but the memorization in fourth
Use the four operations with whole numbers to solve problems.	4.OA.2	4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison . (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem), distinguishing multiplicative comparison from additive comparison. and distinguish multiplicative comparison from additive comparison.	Change	Re-written	#3	
Use the four operations with whole numbers to solve problems.	4.OA.3	4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	Keep			

Gain familiarity with factors and multiples.	4.OA.4	4.OA.4 Find all factor pairs for a whole number in the Using whole number in the range 1–100, A) Find all factor pairs for a given whole number. B) Recognize that a whole number is a multiple of each of its factors. C) Determine whether a given whole number is a multiple of each of a given one-digit number. in the range 1–100 is a multiple of a given one-digit number. D) Determine whether a given whole number is prime or composite in the range 1–100 is prime or composite.	Change	Re-Written	#1, #3	Eliminate Redundancy
Generate and analyze patterns.	4.OA.5	4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number is 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.	Keep			
Generalize place value understanding for multi-digit whole numbers.	4.NBT.1	4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division. For example, recognize that the 7 in 700 is 10 times greater than the 7 in 70 because $700 \div 70 = 10$ and $70 \times 10 = 700$.	Change	Re-Written	#3	Changed example for clarity
Generalize place value understanding for multi-digit whole numbers.	4.NBT.2	4.NBT.2 A) Read and write multi-digit whole numbers using base-ten numerals (standard form), number names (word form), and expanded form. B) Compare two multi-digit numbers based on meanings values of the digits in each place, using \gt , $=$, and \lt <, >, and = symbols to record the results of comparisons.	Changed	Re-Written	#3	Standard Vocabulary

Generalize place value understanding for multi-digit whole numbers.	4.NBT.3	4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place.	Keep			
Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.4	4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard- an algorithm including, but not limited to, the standard algorithm.	Change	Re-written	#3	GROUP CONSENSUS
Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.5	4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Keep			
Use place value understanding and properties of operations to perform multi-digit arithmetic.	4.NBT.6	4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Keep			

Extend understanding of fraction equivalence and ordering.	4.NF.1	4.NF.1 Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	Keep			
Extend understanding of fraction equivalence and ordering.	4.NF.2	4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1/2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols $<$, $=$, or $>$, and justify the conclusions. e.g. by using a visual fraction model.	Change	Re-Written	#3	Consistency with symbols, limits standard by using e.g...
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	4.NF.3	4.NF.3 Understand a fraction a/b with $a \leq 1$ as a sum of fractions $1/b$. For example, $4/5 = 1/5 + 1/5 + 1/5 + 1/5$. 3a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. 3b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. 3c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. 3d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.	Change	Re-Written	#3	Clarity

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	4.NF.4	4.NF.4 Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. 4a. Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$. 4b. Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (in general, $n \times (a/b) = (n \times a)/b = (n \times a) \times 1/b$.) 4c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3/8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?	Change	Re-Written	#3	Clarity
Understand decimal notation for fractions, and compare decimal fractions.	4.NF.5	4.NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express $3/10$ as $30/100$, and add $3/10 + 4/100 = 34/100$.	Keep			
Understand decimal notation for fractions, and compare decimal fractions.	4.NF.6	4.NF.6 Use Read and write decimal notation for fractions with denominators 10 or 100. For example, rewrite .62 as 62/100; describe a length as .62 meters; Locate these decimals .62 on a number line diagram.	Change	Re-Written	#3	Clarity

Understand decimal notation for fractions, and compare decimal fractions.	4.NF.7	4.NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $<$, or $=$, and justify the conclusions, e.g., by using a visual model.—	Change	Re-Written	#3	Consistency
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	4.MD.1	4.MD.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. For example, know that 1ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1,12), (2,24), (3, 36),...	Keep			
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	4.MD.2	4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	Change	Re-Written	#3	Simple is not defined

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	4.MD.3	4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	Keep			
Represent and interpret data.	4.MD.4	4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Solve problems involving addition and subtraction of fractions by using information presented in line plots.	Keep			
Geometric measurement: understand concepts of angle and measure angles.	4.MD.5	4.MD.5 Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement. 5a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $\frac{1}{360}$ of a circle is called a “one-degree angle,” and can be used to measure angles. 5b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.	Keep			

Geometric measurement: understand concepts of angle and measure angles.	4.MD.6	4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.	Keep			
Geometric measurement: understand concepts of angle and measure angles.	4.MD.7	4.MD.7 Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.	Keep			
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	4.G.1	4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	Keep			

Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	4.G.2	4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category , and identify right categories of triangles.	Change	Re-written	#3	Do not want it limited to "right" triangles
Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	4.G.3	4.G.3 Recognize and draw a line of symmetry for a two-dimensional figure s. as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	Change	Re-Written	#3	Clarify Standard (redundant)